



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/265,073	03/09/1999	DAVID K. OWARD	M140-179	4081

21567 7590 04/16/2002

WELLS ST. JOHN P.S.  
601 W. FIRST  
SUITE 1300  
SPOKANE, WA 99201-3828

[REDACTED] EXAMINER

SHIMIZU, MATSUICHIRO

ART UNIT	PAPER NUMBER
2635	

DATE MAILED: 04/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/265,073	OVARD ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Matsuichiro Shimizu	2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 09 March 1999.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-42 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 09 March 1999 is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |                                                                                                                |                                                                              |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2_3</u> . | 6) <input type="checkbox"/> Other: _____                                     |

• Art Unit: 2635

***Specification***

1. The disclosure is objected to because of the following informalities: The examiner requests the applicant to update the U.S. Patent Application Serial Number to patent number 6,130,602 (lines 13-14, page 1).

Appropriate correction is required.

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Applicant's abstract exceed 150 words, and therefore, the examiner requests the applicant to shorten the current abstract to within the range of 50 to 150 words.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 2635

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 6-13, 16-22, 24-24, 27-29, 33-37 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood, Jr. (5,842,118) in view of MacLellan et al. (5,649,296).

Regarding claim 1, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system) comprising: an interrogator (col. 5, lines 25-27, the host computer acting as a master or interrogator) including: a housing (col. 5, lines 34-38, common housing) including circuitry configured to generate a forward link communication signal (col. 5, lines 30-33 and lines 45-47, forward link command (or function) generated at the host computer acting as master or interrogator); communication circuitry configured to communicate the forward link communication signal (Fig. 5, col. 12, lines 28-44, RF circuitry) and to radiate a forward link wireless signal corresponding to the forward link communication signal (Fig. 5, col. 12, lines 28-44, antennas - X1 and X2); and a remote communication device (col. 3, lines 53 to col. 4, line 16, device or transponder (16)). But Wood does not disclose a communication station remotely located with respect to the housing.

However, MacLellan discloses, in the art of tag identification system, a communication station remotely located with respect to the housing (Fig. 1, interrogator (103) remotely connected via LAN (102)) to extend the range of communication with the tag or transponder.

Art Unit: 2635

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a communication station remotely located with respect to the housing in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches a communication station to communicate the remote device to extend the range of communication.

Regarding claim 2, Wood continues, as disclosed in claim 1, to disclose a driver amplifier to increase the power of the forward link communication signal (col. 6, lines 30-42, power adjustable).

Regarding claim 3, MacLellan continues, as disclosed in claim 1, to disclose the communication station including the adjustment of an electrical characteristic of the forward link communication signal (Fig. 2, modulator (202), col. 3, lines 37-42, modulating the information signal (200a)).

All subject matters except a power amplifier in claim 6 are disclosed in claims 1 and 3. However, Wood discloses a power amplifier (Wood-Fig. 7, PA (979)), and therefore, rejections of all subject matters expressed in claim 6 are met by references and associated arguments applied to rejections of claims 1 and 3, and the above disclosure of Wood.

All subject matters except an antenna in claim 7 are disclosed in claims 1 and 3. However, Wood discloses an antenna (Wood-Fig. 7, X1 and X2) and therefore, rejections of all subject matters expressed in claim 7 are met by references and associated arguments applied to rejections of claims 1 and 3, and the above disclosure of Wood.

Regarding claim 8, Wood continues, as disclosed in claim 1, to disclose a radio frequency identification device (col. 4, lines 19-26, RF identification badge).

- Art Unit: 2635

All subject matters except a coaxial RF cable in claim 9 are disclosed in claims 1 and 3.

However, MacLellan discloses, in the art of interrogator system, a coaxial RF cable associated with communication station (Fig. 1, LAN (102), A coaxial RF cable associated with LAN network) to extend the range of communication with the tag or transponder. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a coaxial RF cable in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches a coaxial RF cable associated with communication station to extend the range of communication. Therefore, rejections of all subject matters expressed in claim 7 are met by references and associated arguments applied to rejections of claims 1 and 3, and the above disclosure of MacLellan.

Regarding claim 10, Wood continues, as disclosed in claim 1, to disclose a plurality of transceivers (Fig. 7, col. 13, lines 8-33, a diversity switch provides a plurality of transceivers).

All subject matters in claims 11-13 and 16-20 are disclosed in claims 1-3 and 6-10 and therefore, rejections of all subject matters expressed in claims 11-13 and 16-20 are met by references and associated arguments applied to rejections of claims 1-3 and 6-10.

Regarding claim 21, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system) comprising: a housing (col. 5, lines 34-38, common housing) including circuitry configured to generate a forward link communication signal (col. 5, lines 30-33 and lines 45-47, forward link command (or function) generated at the host computer acting as master or interrogator). But Wood does not disclose a plurality of

Art Unit: 2635

forward link communication signals and a plurality of communication stations remotely located with respect to the housing.

However, MacLellan discloses, in the art of tag identification system, a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing (Fig. 1, interrogators (103) (or remote stations); multiple signals on interrogators) remotely connected via LAN (102)) to extend the range of communication with the tags or transponders. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing to extend the range of communication with the tags or transponders.

All subject matters in claim 22 and 25 are disclosed in claims 7 and 21 and therefore, rejections of all subject matters expressed in claims 22 and 25 are met by references and associated arguments applied to rejections of claims 7 and 21.

Regarding claim 24, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system). But Wood is silent on communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station.

Art Unit: 2635

However, MacLellan discloses, in the art of tag identification system, communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station (Fig. 1, LAN (102) circuit is analogous to intermediate communication circuit) to extend the range of communication with the tags or transponders. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station to extend the range of communication with the tags or transponders.

Claims 27-29 and 33-34 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 1-3, 6 and 8. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 1-3, 6 and 8 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 27-29 and 33-34 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 27-29 and 33-34 would have been obvious to the

Art Unit: 2635

artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1-3, 6 and 8.

Claims 35-37 and 41 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 11-13 and 16. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 11-13 and 16 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 35-37 and 41 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 35-37 and 41 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 11-13 and 16.

Claim 42 recites a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 11, 21 and 25. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 11, 21 and 25 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in claim 42 are met by the references and associated arguments as set

Art Unit: 2635

forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claim 42 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 11, 21 and 25.

4. Claims 4-5, 14-15, 23, 26, 30-32 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of MacLellan as applied to claim 3 above, and further in view of Freeze et al. (6,313,737).

Regarding claim 4, Wood continues, as disclosed in claim 3, to disclose the adjustment of electrical characteristics. But Wood in view of MacLellan does not disclose the adjustment circuitry comprises automatic gain control circuitry (col. 13, lines 52-56, AGCs).

However, Freeze discloses, in the art of interrogation system, the adjustment circuitry comprises automatic gain control circuitry (col. 11, lines 55-61, AGCs in the integrator to transmit proximity values) whereby the integrator transmits proximity values. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the adjustment circuitry comprises automatic gain control circuitry in the device of Wood in view of MacLellan as evidenced by Freeze because Wood in view of MacLellan suggests the adjustment of electrical characteristics and Freeze teaches the adjustment circuitry comprises automatic gain control circuitry whereby the integrator transmits proximity values and provides power control.

Regarding claim 5, Freeze continues, as disclosed in claim 4, to disclose the automatic gain control circuitry is configured to monitor the power and adjust the power (col. 7, lines 34-44 and col. 11, lines 55-61, AGC functioning to adjust the power level to the normalized level).

Art Unit: 2635

All subject matters in claims 14 are disclosed in claims 1 and 4 and therefore, rejections of all subject matters expressed in claims 14 are met by references and associated arguments applied to rejections of claims 1 and 4.

All subject matters in claims 15 are disclosed in claims 1 and 4-5 and therefore, rejections of all subject matters expressed in claims 15 are met by references and associated arguments applied to rejections of claims 1 and 4-5.

All subject matters in claim 23 are disclosed in claims 4 and 22 and therefore, rejections of all subject matters expressed in claim 23 are met by references and associated arguments applied to rejections of claims 4 and 22.

All subject matters in claims 26 are disclosed in claims 1-2 and 4-8 and therefore, rejections of all subject matters expressed in claims 26 are met by references and associated arguments applied to rejections of claims 1-2 and 4-8.

Claims 30-32 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 1 and 4-5. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 1 and 4-5 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 30-32 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in

Art Unit: 2635

Claims 30-32 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1 and 4-5.

Claims 38-40 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 14-15. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 14-15 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 38-40 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 38-40 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 14-15.

• Art Unit: 2635

### Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is (703) 306-5841. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Micheal Horabik, can be reached on (703-305-4704). The fax phone number for the organization where this application or proceeding is assigned is (703-305-3988).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matsuichiro Shimizu

April 11, 2002



MICHAEL HORABIK  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

